

Please add the following new claims:

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10. (New) A method for shifting an instant of commutation for a sensorless and brushless direct-current motor including stator windings fed by a multi-phase converter connection, comprising the steps of:

detecting the instant of commutation by comparing a voltage induced in a stator winding phase in which no current is applied to a reference voltage; and

changing the reference voltage in dependence upon at least one of a setpoint value of a rotational speed of the direct-current motor and a manipulated variable calculated from the setpoint value.

11. (New) The method according to claim 10, further comprising the step of:

shifting forward the instant of commutation with respect to time such that an optimum current waveform is achieved, the optimum current waveform being with respect to at least one of increasing a power and reducing a torque ripple.

12. (New) The method according to claim 10, further comprising the step of:

shifting the instant of commutation such that the reference voltage is raised in a shape of a parabola.

13. (New) The method according to claim 12, wherein:

with respect to a pulse width modulation of a current supplied to the stator windings, the parabola-shaped raising of the reference voltage begins at a pulse width modulation ratio of about 90 to 95%.

14. (New) The method according to claim 13, wherein:

the pulse width modulation ratio is 93%.

15. (New) The method according to claim 10, further comprising the step of:

adapting a current supply to individual stator winding phases in accordance with the manipulated variable in order to one of raise and lower the current supply accordingly.

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cont.

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16. (New) A system for shifting an instant of commutation, comprising:
a multi-stage converter connection, including:
an output stage control,
a commutation logic,
a phase selector, and
a phase discriminator;
a sensorless and brushless direct-current motor fed by the multi-stage converter connection;
a commutation detection element, including:
a first input supplied by the phase selector with an instantaneous value of a voltage induced in a non-energized phase, and
a second input supplied with a reference voltage for comparison;
a commutation shift element for changing the reference voltage in accordance with a specific curve; and
a manipulated-variable calculation element for supplying a manipulated variable to the commutation shift element as a function of a setpoint speed of the direct-current motor.
17. (New) The system according to claim 16, wherein:
in the commutation shift element, the reference voltage is changed in accordance with a parabola.

18. (New) The system according to claim 17, wherein:
the reference voltage is increased.
19. (New) The system according to claim 17, wherein:
with respect to a pulse width modulation of a current supply to individual stator winding phases of the direct-current motor, the reference voltage is increased in a parabola shape, starting from a pulse width modulation ratio of about 90 to 95%.